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**REPORT**  
of the  
**Montana Highway**  
**Interim Committee**  
to the  
**41st Legislature**

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REPORT OF THE MONTANA HIGHWAY INTERIM COMMITTEE  
ON HIGHWAYS TO THE LEGISLATURE

Introduction

The 40th Legislative Assembly of the State of Montana appointed a legislative Interim Committee to work with the State Highway Department and the Highway Commission on matters concerning the relationship between the Legislature and the Department. The Interim Committee was made up of two senators and two representatives divided equally between the two parties. The senators serving on the original Committee were Senator George Schotte from Silver Bow County who served as its chairman and Senator Earl Moritz from Fergus County. The two members from the House of Representatives were Representative Elmer Schye from Meagher County and Representative Eugene Egan from Pondera County. After the second meeting, Senator Moritz was made chairman and Senator Dave Manning replaced Senator Schotte as a member of the Committee. The Interim Committee met with the Highway Department and the Highway Commission several times during 1967 and 1968.

The Highway Interim Committee was created because of a feeling on the part of the Legislature that there was inadequate communication between the Highway Department and the Legislature on a number of matters. Other less formal arrangements did not prove fruitful and it was felt that a more formal approach was necessary. The matter of financial independence afforded by the anti-division amendment has been



beneficial to Montana in providing a highway program that contains long-term objectives and steady progress, however, it is not so beneficial in keeping close communication with the Legislature. It is in this spirit that the Highway Interim Committee has worked to establish better communications between the two so as to make aware the problems of the Highway Department and the people of Montana in an effort to help, suggest, advise, and determine beneficial legislation. Lastly, it is hoped that the results of the Interim Committee will be to help the Highway Department in its goal of operating in the public interest against inefficiency, waste, and delays that may now exist or may exist in the future.

It is worth pointed out that during the meetings between the Interim Committee and the Highway Department there has developed a working relationship between the parties that has gone far in promoting the intent of the Legislature. The Committee was able to inform the Highway Department of various queries from legislators and citizens as well as learning of various problems that the Department faces that may be relieved by appropriate legislation.

The following is a summary list of the more important problems brought out during the meetings where there has been agreement on the existence of and where there has been exploration into or action taken:

- a. Delays in planning contracts for letting.
- b. The existence of high engineering costs.
- c. The timing of and dollar amounts of contract lettings.
- d. The need for a more workable right-of-way law.
- e. The problem of whether it is wise to guarantee the quality and quantity of gravel pits.





- f. The advantages and disadvantages of alternative road surfaces, including concrete, and on secondary roads, surfaces of double-shot and asphalt.
- g. Completion time on contracts.
- h. The confusion over the allocation of primary funds and the maintenance and reconstruction of dual road networks.
- i. Lack of space
- j. Motor pool
- k. Painting highway Department vehicles
- l. Abandoned cars

#### A Detailed Discussion of These Problems

##### Delays in Planning Contract Lettings

The Interim Committee felt that the Highway Department has lagged behind in developing contracts given the size of their staff. During the latter half of 1966 plans were so far behind that the cancellation of Federal funds due to a general cutback had little effect on the Department. If plans were forthcoming at an appropriate rate the cutback of funds would have caused a cutback in contract lettings. Now, it is not that a cutback would have been desirable, but that the fact that no cutback was necessary meant that the program was not operating at an efficient rate. The Interim Committee requested the Highway Department to provide an explanation of this matter.

In its reply, the Highway Department placed the majority of the blame on the rapidity of technological change coming in highway construction. They expressed their goal of trying to give the people of Montana the best highway possible and that the incorporation of these

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changes necessarily delays the finalizing of contracts. The Interim Committee felt, however, that while providing the best possible highway is a noble objective, that one must finally draw the line somewhere and try to achieve an optimum balance between refining plans with the latest innovations and actually giving the people of the State a road to drive on.

#### The Existence of High Engineering Costs

The subject of engineering costs relative to other costs of highway construction has been brought to the attention of the Highway Department by the Interim Committee and the Bureau of Public Roads. In particular, they have referred to the seemingly high engineering costs involved and requested the Highway Department to provide an explanation of this matter.

The Highway Department has on a previous occasion documented this to the Bureau of Public Roads. In its reply to the Interim Committee, the Highway Department noted that the location of particular construction sites are limited in the lodging facilities available and that considerable expense is incurred in transporting engineers daily to and from the construction site. The Interim Committee suggested that it may be less costly for the Highway Department to rent trailers so as to provide on-site quarters. This would eliminate the expense of transporting the engineers back and forth each day. The Highway Department has looked into this alternative and have remarked that it looks promising.

Other areas where excessive engineering costs may be incurred are in the lenient specifications regarding the starting time on jobs that

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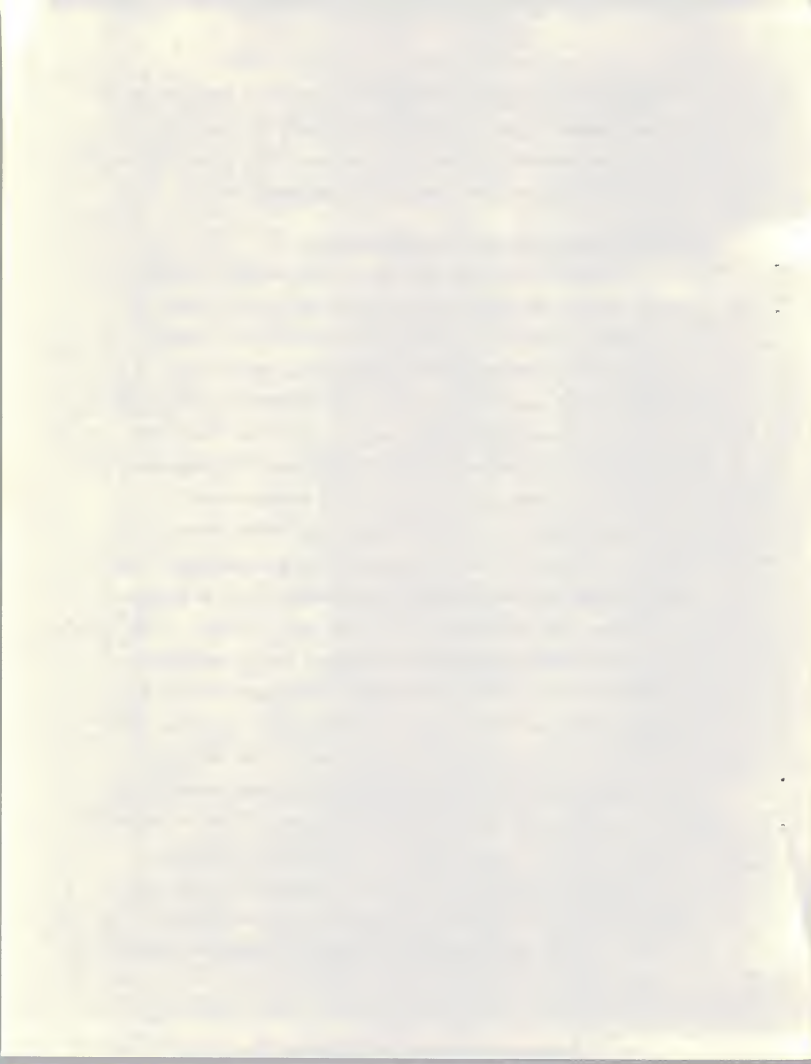
are allowed by the Department, what may be an excessive number of engineers employed at each job, and the time allowed for completing jobs. The Highway Department is aware of this problem and is presently working on trimming any excess costs involved from engineering aspects.

#### Timing and Dollar Amounts of Contract Lettings

The Committee feels that the delays in planning jobs has also adversely affected the timing and dollar amounts of contract lettings. For example, during 1967 the construction portion of their appropriation bill No. 11 was \$60,000,000 but during March and April only \$600,000 was let each month. Clearly, this does not represent a steady flow of lettings in terms of dollar amounts since it would take 100 months to meet the appropriation amount at that rate. If plans were forthcoming on a more even basis this problem would not occur.

Regarding the rate which contracts are let, it has been the history of the Highway Department that contracting has slacked off in November, reduced to nothing in December and January, picked up a little in February, and then reached a peak in June, July, and August. The major fault with the summer peak in lettings is that the contractors just get into the dirt and sub-base gravel stage when the weather turns and they are forced to shut down until the next year. If the jobs were let on a more even-flow basis the contractors could take advantage of better timing. For example, where a job now would take two seasons and leave a project half constructed during the winter, it could be started in March and then finished before the weather turned in the fall.

The Highway Department is presently working on this problem and plans to move in the direction of a more even flow in preparing contracts. This not only will provide the people of Montana with better



highways and minimize the amount of road that must remain unconstructed during the winter but will also reduce costs and provide more and better roads for each highway dollar.

#### Right-Of-Way Laws

One of the purposes of the Interim Committee is to help establish communication between the Highway Department and the Legislature. In this regard the Committee asked the Highway Commission if there is any legislation that they could suggest to improve right-of-way acquisitions. The Commission replied that the present right-of-way law is archaic and is increasing the costs of the highway program.

At the present time the Highway Department has a disputable presumption on necessity and the Commission feels that a conclusive presumption in need on necessity would be desirable. The time and expense of first going through a necessity hearing, then into the District Court causes lengthening delays and increases the costs of the Legal Department approximately 100% and the Right-Of-Way Department by approximately 50%.

Another attractive alternative is to follow the Arizona plan which has worked very well. In Arizona they have a preliminary hearing where they argue necessity and value with the right to appeal into the District Court. This has speeded up their highway program considerably.

A third alternative would be to establish a professional Hearing Officer in lieu of the Commission Hearing. The professional Hearing Officer would serve as an Appeals Referee and would travel around the state and hold individual hearings regarding value. The individual would then have the right of appeal into the District Court. This program has been successfully adopted by some states.





A fourth alternative would be to establish a "quick-take" law as North Dakota has. Under this system the Highway Department files a declaration of taking and the property owners are notified that the property is now owned by the Government. The issue of value is settled later. This, of course, is a quick way to develop a highway but it was felt that this approach would not be appropriate for Montana at the present time.

The Commission indicated that they were having a thorough study of the issue of right-of-way and eminent domain made by the University of Montana Law School. This study will be complete and will be the basis of a new bill that the Highway Department plans to submit to the new Legislature. It is the opinion of the Interim Committee that this bill will have to come under the careful scrutiny of the lawyers in the House and Senate in order to comprehend and analyze its implications.

#### The Quantity and Quality of Gravel Pits

In its bid invitations, the Highway Department may indicate that a certain area will have a gravel pit that contains gravel of a particular quantity and quality needed to meet the conditions of the contract. On a secondary job from Glendive to Bloomfield, the gravel in the designated pit failed and the contractor was forced to move to another pit of his choosing. The contractor submitted a claim for extra expenses which the Commission rejected. The case was taken to the Supreme Court where the decision was handed down in favor of the contractor. In its opinion, the Court said that the Highway Department is responsible for the quantity and quality of gravel that they claim is available in a designated pit.



In response to questions by the Interim Committee concerning this matter, the Commission said that three years ago they changed their special provision on designating gravel pits or alternative pits but that they have not reviewed it in light of this new development. The Interim Committee pointed up the need for this review and the need for drawing up a new set of regulations regarding this issue. As a result the discussions that followed raised a number of interesting alternatives which are discussed briefly below.

One approach would be to follow Wyoming and simply guarantee both the quantity and quality of the gravel pits and then set up a stipulated rate of a certain amount per yard mile if the pit fails and the contractor has to move to an alternative site. This would eliminate the expense of taking these matters to court and given the probable size of the settlement if the case is found in favor of the contractor the savings would be considerable. This method of having the State guarantee the pits would replace uncertainty with certainty and would be more economical than the present method as well as more businesslike. As mentioned above, this system has been used in Wyoming with a great deal of success and the Interim Committee urges that this plan be given careful consideration.

A second basic approach which is precisely opposite the one discussed above would be to let each contractor obtain his gravel from where he desires. The only requirement would be that the contractor follow the specifications of the contract. This system was tried on the Park City to Laurel job and was not found to be acceptable. In this instance two borrows were created directly adjacent to the Interstate highway and the city of Laurel. The pits are not only unsightly



but are now full of water. This detracts from the beauty of the area harming values and constitutes a health hazard as a breeding ground for insects as well as being dangerous for livestock.

Another cost that may be incurred if the Highway Department adopted such a plan would stem from the possible monopolization of gravel pits into the hands of a few people. As with any monopoly or cartel arrangement, prices will be raised to exorbitant levels increasing the already high costs of highway construction. This is not just idle speculation since it has happened in North Dakota and there is some opinion that it exists in at least one area of Montana.

#### Concrete and Alternative Road Surfaces

The Interim Committee has been made aware of complaints from numerous citizens on the quality of road surfaces designated by the Highway Department that were used on some Montana highways. One section in particular that has inspired letters to the Highway Department and to the Interim Committee from citizens is an extensive section of Interstate 94 adjacent to Miles City. This is a concrete surfaced highway that was constructed about seven years ago and has since deteriorated to such an extent that many sections of it have since been overlaid with black top. Near Butte, the concrete portion of the Interstate used aggregates that made portions of the highway of widely varying textures. A great deal of grinding has been done but the results are still not satisfactory. The concrete sections on the Interstate near Missoula have undergone some cracking and the new section through Three Forks is cracking right down the middle of the highway.



The numerous complaints and criticism regarding the concrete pavement in the State induced the Interim Committee to inspect some of these jobs in person to determine for themselves the quality of the road surfaces and to see if all the criticism that the Highway Department received was warranted.

The Committee's first visit was to Missoula, Montana, where there had been extensive criticism of the pavement on the Interstate by Missoula. Mr. Oscar Ostenson, District Engineer, met the Committee and gave them an inspection tour of the job. Many cracks were noticed but had been repaired and no new breaks of any consequence were discovered. The Interim Committee wants to point out that the Highway Department did an excellent job of repairing the cracks and that they have no criticism on their method of repair. The only reservation of the Interim Committee is that they feel that the personnel of the Highway Department were lax in not closing down the contractor's paving operations when their saw broke which made it impossible for them to follow closely enough to saw the construction joints at the proper time.

Following the inspection of the concrete, the Interim Committee met at the Florence Hotel with Mr. Ostenson, Representative John M. Steele, Representative James Nugent, Senator Mills Folsom, Representative Harry Northey, Representative Tom Haines, Representative Bud Ainsworth, Representative H. O. Bell Warden, Senator Eddie Dusault, and Representative Winfield Page.

At this meeting the Interim Committee held an open discussion on the concrete pavement. At the conclusion of the meeting Chairman Moritz





asked Representative Nugent if he was satisfied with the Interstate and the quality of the repairs and he replied that he had no complaints.

The Miles City job has inspired the most criticism from the public and thus the Interim Committee felt that a visit to this site was in order. In brief, the Miles City jobs East and West were inspected and found to be the poorest in Montana. The Highway Department has repaired depressions from 4 to 9 inches and have spent a considerable amount of money on these items. Some of the broken places have been repaired with black top, but it seems that the most satisfactory method from a length of service view is by jacking, which they are doing a great deal of at the present time. Reference to the Miles City concrete pavement failure is not due to any fault of the contractors or the engineers in charge, but rather, due to the soil condition with a high volume swell. It is nearly impossible to lay concrete pavement without having movements on this type of subsoil.

The Committee visited several states and looked at different concrete paving jobs. The results of this survey are also pointed out later in this report where the complete results of the 8 state survey is presented. Although this makes for some duplication it was felt that the results should also be presented here so as to make each section of the report complete.

The first state that the Interim Committee visited was North Dakota where all their Interstate is concrete pavement. They are encountering some of the same problems, albeit not as severe as on the Miles City job. They have found the jacking method to be the most economical and satisfactory for repairs. They have also done some overlay with asphalt. A complete list of their overlay projects can be found under "North Dakota" in the section on the 8 state survey.



South Dakota uses some pavement and their problems are about on a par with those experienced in Montana and North Dakota.

The Highway Department in Colorado uses pavement through their heavily populated areas but use black top on roads where the volume of traffic is less. The people in the Colorado Highway Department told us that they did not put any pavement down where there was any volume of swell in the soil.

Utah's pavement was perhaps a little better than the other states and they had not experienced the extensive need for repairs that the other states had. However, they did say that they have used the utmost caution in using concrete.

Idaho has not used concrete extensively due to its high cost and their limited funds. However, they have experienced no special problems with the pavement that they have put down.

Oregon uses pavement to a great extent, but they also said that in Eastern Oregon the soil conditions were such that they did not use it in that area. They have had some problem with breaks but not to a great extent. This perhaps may be attributed to their warmer climate.

Washington uses a great deal of concrete pavement. They explained that they had to use pavement because after building their highways they could not make repairs with traffic on them and that in the event that repairs are necessary, they would have to close off the lanes that are being repaired. Concrete has proved satisfactory in the western part of the state. In Eastern Washington they have experienced the same difficulties that Montana has.

It is the opinion of the Interim Committee that the Highway Department has been much too careless in their choice of road surfaces. In



many cases the Highway Department was well aware of the fact that concrete was a poor choice but could provide no defense for this choice. While concrete has not held up well in certain places does not imply that it should never be used. In fact, the Committee feels that Montana's concrete pavement is equally as good, or perhaps better than some other states. The Interim Committee simply feels that a great deal of care and scrutiny should be used when considering concrete in light of the heavy maintenance expenses involved.

#### Lack of Space

The increased growth of the State of Montana and in highway travel has placed severe pressure on many State agencies including the Highway Department. During the last session of the Legislature the Capitol Building Committee recommended that consideration be given to the problem of adequate space. Upon a review of the evidence involved in the Highway Department, the Interim Committee, while not recommending a new building, feels that this problem should be studied in depth and at that time a recommendation made.

The Highway Department is the largest single agency in the State and employs approximately 2,200 people with 552 engaged in administration, design, construction, right-of-way, and maintenance in the Helena headquarters. In addition, Montana Highway Commission employees are housed in all or part of six different buildings in Helena. These buildings are:

1. Lundy Shopping Center, 4,400 square feet, used by the Gross Vehicle Weight Section.
2. Hustad Shopping Center, 5,000 square feet, used by the Planning Survey; 15,800 square feet used by the Montana Highway Patrol.



3. Cogswell Building, 13,473 square feet used by the Materials Division.
4. Gregory house next to the Highway Building, 1,200 square feet used by the State Advertising Division and Safety Section.
5. McGregor house, 1,200 square feet used by the I.B.M. programmers.
6. Offices and shop building at Helena Fairgrounds, located 5 1/2 miles from main office, 47,000 square feet for storage and maintenance of State equipment.
7. The present Highway Building housing all other departments, 48,033 square feet.

The Highway Department feels that this situation represents waste and causes inefficient operation due to the rent that is paid on these sites and the travel between buildings that occurs. The rental cost of these sites and an estimate of the cost of travel between them is given in Table 1.

Table 1

RENTAL COST OF THE HIGHWAY DEPARTMENT AND  
ESTIMATED TRAVEL EXPENSES BETWEEN BUILDINGS

<u>Department</u>	<u>Monthly Rent</u>
Planning Survey	\$1,100.00
G. V. W.	1,045.00
Materials Division	2,100.00
Highway Patrol	1,866.00
Highway Shop at Fairgrounds	
Total Rent	\$6,111.00
Total cost of rent and trips per month	7,057.00
Total cost per year	84,684.00





If a new building were built to house the Highway Department in a single unit, the present building could be used to house other agencies now renting in Helena. A list of possible agencies that would be included are given in Table 2.

Table 2

AGENCIES THAT COULD BE INCLUDED IN A NEW BUILDING

Adjusted Compensation Division - presently downtown  
 Electrical Safety Board - located in the Wheat Building  
 Employment Service - 515 N. Main Street  
 (Airport - would not apply)  
 Highway Commission - at Lundy's Shopping Center  
 License Photographic Office - in the Larson Block  
 Historical Society - in the Larson Block  
 Division of Mental Hygiene - in the Larson block  
 Milk Control Board - in the Steamboat Block  
 Nursing Board - in the Wheat Building  
 Oil & Gas Conservation Commission - 325 Fuller, Savings & Loan  
 Building  
 Board of Food Distributors - in the South Annex-Power Block  
 State Board of Health - in the Larson Block  
 (Would not be feasible to move the State Library  
 from East Lyndale Avenue)  
 Superintendent of Public Instruction - 805 N. Main Street  
 Teachers Retirement System - at Lundy's Shopping Center  
 Veterans' Welfare Commission - in the Horsky Block  
 Vocational Rehabilitation - in the Power Block

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DIVISION OF THE PHYSICAL SCIENCES  
DEPARTMENT OF CHEMISTRY

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In considering the location of any new building for the Highway Department it should be pointed out that since the day-by-day work of the Department is such that direct communication or dealings between the other State offices is small, it might be desirable to place the complex some place other than in the Capitol area. This would rid the area of some 400 cars and, as pointed out above, make the existing building available for other agencies.

The Interim Committee learned from its visits to eight other states that the most common mistake made in new buildings was the lack of adequate space, especially for parking and records. This matter is taken up in some additional detail in the section on The Eight State Survey. The Committee wants to point out that in the event a building is recommended at a later date that careful planning be given to this matter of space and that there is provisions for future growth. With the population of Helena growing and expected to reach 31,000 by 1975 this matter should remain high on the list of objectives of any new building.

In summary, the Interim Committee while not recommending a new building, believes that the problem of a new building should be given careful consideration.

#### Motor Pool

The State Government is the largest user of automobiles in Montana. Presently, there is no centralized motor pool of, say, the G. S. A. type and as a result three undesirable consequences from this exist.

First, the Interim Committee has found that there are an excessive number of low mileage cars in various agencies along with some high mileage cars. Some cars only put on a few thousand miles a year while

1. The first part of the paper discusses the importance of the study and the objectives of the research. It also provides a brief overview of the methodology used in the study.

2. The second part of the paper presents the results of the study. It includes a detailed description of the data collected and the analysis performed. The results are presented in a clear and concise manner, using tables and figures where appropriate.

3. The third part of the paper discusses the implications of the study. It explores the potential applications of the findings and the limitations of the study. It also provides suggestions for future research.

4. The fourth part of the paper is a conclusion. It summarizes the main findings of the study and reiterates the importance of the research. It also provides a final statement on the significance of the study.

5. The fifth part of the paper is a bibliography. It lists all the sources used in the study, including books, articles, and other references. The bibliography is formatted according to the standards of the journal.

6. The sixth part of the paper is an appendix. It contains additional information that is not included in the main body of the paper. This may include raw data, detailed calculations, or other supplementary material.

7. The seventh part of the paper is a list of figures. It provides a brief description of each figure and its location in the paper. This helps the reader to quickly find the figures they are interested in.

8. The eighth part of the paper is a list of tables. It provides a brief description of each table and its location in the paper. This helps the reader to quickly find the tables they are interested in.

9. The ninth part of the paper is a list of abbreviations. It provides a brief description of each abbreviation and its meaning. This helps the reader to understand the terminology used in the paper.

10. The tenth part of the paper is a list of keywords. It provides a brief description of each keyword and its meaning. This helps the reader to understand the main topics of the paper.

others may have 30 or 40 thousand or more. This wide variation in the use of cars shows that a pooling arrangement would represent a considerable savings. Any pooling arrangement among the participants makes it possible to get along at the present level of efficiency with less cars. Also, the cars could be used more evenly, thus preventing the wide variation in mileage that now exists.

Second, the maintenance now given to State cars varies over a wide range. Under present arrangements an agency simply takes its vehicles to a private garage for any repairs. This could cause much variation in the quality of the service and the cost involved. More uniform servicing could be performed under a motor pool type of operation.

Third, except for the Highway Patrol, there is no efficient way of determining the exact cost of any vehicle. Agencies are not certain what has gone into any particular vehicle without extensive checking. The method adopted by the Highway Patrol and which could be used in a motor pool would be to have a job sheet with the mechanics. Under this system all of the parts and labor that have gone into a particular vehicle is charged to that piece of equipment. This would enable the motor pool to know the exact cost of a piece of equipment, thus making it possible to get rid of vehicles that are plagued with trouble before excessive amounts of money are wasted on them.

In conclusion, the Interim Committee recommends that the Legislature look carefully into the desirability of creating a State motor pool in light of the advantages pointed out.

#### Painting of Highway Department Vehicles

Presently, the Highway Department paints all their vehicles bright orange as an identification symbol. This procedure was adopted in order



to act as a deterrent to using State cars for private use. However, the effectiveness of this method of inhibiting the private use of State vehicles depends on whether the vehicle was repainted to another color before being resold. The Highway Department has been lax on this and as a result has wasted time and incurred expense in investigating calls from irate citizens that Highway Department employees were fishing, hunting, or drinking in some bar because they saw those people driving orange vehicles, even though they no longer belonged to the Highway Department.

The Highway Department deducts the cost of painting and repainting but does not actually repaint them. Clearly, the success of this method of deterring Highway Department personnel from using their vehicles for private use depends on repainting so that the resold vehicles can no longer be mistaken for Highway Department vehicles.

The cost of painting and repainting a vehicle is \$160 per unit for passenger cars. This is a considerable expense to incur for identification. Also, if the cars are not repainted back to a standard color used by the manufacturer it cannot be sold for as high a price since the bright orange detracts from its appeal.

It is worth noting that among the eight Rocky Mountain and Western states surveyed, only Montana painted their vehicles with a special color. The other states simply purchased stock colored vehicles and identified them with a decal.

As a result of the facts pointed out above, the Interim Committee makes the following recommendations: Investigation shows the orange color to be an unnecessary expense from the standpoint of purchase, from





the standpoint of resale, and in addition, when private individuals buy these cars they do not always repaint them and as a result the Highway Department is unjustly accused of using State vehicles for private purposes. Therefore, it is recommended that this practice be discontinued; that standard manufacturers' colors be purchased and the cars be identified as State vehicles with a decal--a replica of the State Seal--at least nine inches (9") in diameter. This does not apply to trucks or pickups--just cars.

#### Abandoned Cars

The Highway Department has had problems with the present law on abandoned cars. The present law states that the law enforcement agencies can take into custody any motor vehicle found abandoned for a period of 5 days or more. They feel that this is much too long as the vehicles interfere with the work of the Highway Department.

Some possible amendments would be to allow a 2 day limit if the car interfered with the work of the Highway Department, if it represented a hazard to the traveling public, or just amend it to 2 days on all Federal Interstate highways.

The Interim Committee recommends that this issue be given more attention in order to get a law that is workable from the standpoint of the Highway Department.

#### The Eight State Survey

The Highway Interim Committee conducted a survey of eight Rocky Mountain and costal states designed to gain an impression of the operation of their Highway Departments and their Interim Committees in those



states where they exist. The states covered in the survey were Colorado, North Dakota, South Dakota, Idaho, Oregon, Washington, Utah, and Wyoming. In addition, Mr. Riely Johnson of the Montana Highway Department has supplemented the Interim Committee's survey with a statistical survey that covers the above states plus Nevada and compares their figures to those obtained from Montana. Mr. Johnson's report is available and provides a useful supplement to this report and also contains much useful material of its own.

### Colorado

The Interim Committee was met in Denver by Mr. Brown and Mr. Neumyer and was taken on a tour of their building. The Highway Department Building was found to be well constructed and its space utilized in an efficient manner. The major problem with their facilities concerns the lack of available parking.

Approximately 30 percent of their Interstate highway is concrete. As in Montana, they have had some trouble and have done a considerable amount of jacking. They have recognized the relationship between soil with a high volume of swell and the need for jacking and have not been using concrete where the soil has this property.

Colorado has solved the problem of gravel pit failure by guaranteeing the quantity and quality of their gravel pits. If the designated pit should fail, the contractor is paid for the moving and haul under their "change condition" clause.

Asphalt plants are causing an air pollution problem around their population centers. To date, they have not been able to provide a solution to this problem.



North Dakota

North Dakota has a new building for their Highway Department. However, they are already short of space and there is a parking problem. At the time the Interim Committee visited North Dakota, they were just beginning to move into their new building.

The Interim Committee inspected a section of concrete paving between Dickinson and Bismarck and discovered numerous breaks in the concrete. The state has done a large amount of jacking. Two old projects have been overlaid to upgrade the width and structural strength. One is for approximately 16 miles on I-94 Casselton West and the other is on U.S. Route 10 Fargo to West Fargo for four miles. In general, their concrete pavement has provided satisfactory service, according to R. E. Bradley, Chief Engineer. The Interim Committee also inspected one seven mile stretch of concrete pavement approximately one mile west of the Missouri River to seven miles east. This job is by far the best concrete surface that the Interim Committee saw. The reason for this is that they used 5/8 inch reinforcing bars on six inch centers. It was the opinion of the Highway Department in North Dakota that this stretch of pavement would have no failures which apparently is true since no breaks were discovered on the entire distance. North Dakota uses all concrete on Interstate Highways. They use asphalt sub-base on their secondary roads. They feel that this type will stand up at least 20 years. The jobs they have done so far have proved to be very satisfactory.

South Dakota

The Interim Committee was met by Mr. Young, the Chief Engineer, and



Mr. Olson, the Administrator who showed the Committee their facilities and answered their questions.

The Committee inspected the Highway Department and noted some of the errors in the design. In particular, they have experienced a shortage of parking space and space for storing records.

South Dakota does not option gravel pits but they do specify the quantity and quality of each pit shown on the plans. In the event that a pit does not prove to be of the quantity or quality specified and the contractors's equipment is deemed satisfactory, the Highway Department will pay for moving to another pit and the additional haul at 6 cents per yard mile as set out in their specifications. If the pits are marginal or do not meet their standard specifications, they design specifications to fit that type of pit.

With regard to road surfaces, they have had some problems with cracking concrete and have done a considerable amount of jacking. They use asphalt sub-base on their secondary roads and have had very good results.

#### Idaho

The Interim Committee was met in Boise by Mr. Christiansen of their highway Department. He gave the Committee a tour of the building and Mr. Mathis told them that they were well satisfied with the building and that it provided enough space at the present time. However, they could use additional space for parking. Parking space was found to be a problem in nearly all the states covered and should be given careful consideration in Montana if it is decided to build a new building.

Idaho has used very little concrete pavement as they feel that the





cost is prohibitive given the limited budget they have to work with. However, the small amount of concrete that they do have is satisfactory.

They have solved the gravel pit problem by guaranteeing the quantity and quality of the pit. The contractor is paid for his move and haul if the pit does not have gravel to meet the specifications.

Idaho has Port of Entry Stations which bring in a sizable amount of revenue. Besides collecting revenue they also provide the state with better control of the loads that are being hauled over their highways and a better check on the trucks that pass through their state.

Air pollution from their asphalt plants presents a problem to which they have no solution at the present time.

### Oregon

The Interim Committee was met in Salem by Mr. Cooper, Chief Engineer, R. L. Potter, Deputy Engineer, Mr. Sieerell and Mr. T. Richfield, the Utility Agent. They gave the Committee a general review of the operation of the Highway Department regarding construction and maintenance.

Oregon owns the great bulk of gravel pits and makes them available to the contractor if he so desires. The contractor still has the privilege of optioning pits if he feels it is to his advantage.

The Maintenance Department maintains approximately 7,600 miles of road. They have some concrete pavement and mentioned that they have had problems and have had to use the jacking method in many instances. They told the Committee that they have a policy of not using concrete pavement where the soil shows any volume of swell, such as in Eastern Oregon.

Oregon makes a division of gas tax money of 12 percent to cities and 20 percent to counties which applies to all motor fuels. Their overall revenue is approximately \$95,000,000 per year. They use a ton-mile

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tax for trucks and according to their personnel it has proven satisfactory and has produced the revenue that was expected.

They made a study of their needs for highway improvements over a 20 year period and found that it would take 3 1/2 billion dollars to bring the highways up to standard over that period. If the revenue was to be obtained from a gas tax, it would be approximately 20 cents per gallon which they feel is unrealistic at the present time.

The Oregon Park System is similar to Montana's and is administered under their Highway Department. Their budget is \$11,300,000, however, the revenue from the parks is substantial. Another interesting aspect of their operation is that they spend \$1,500,000 per year in advertising Oregon as a state to visit.

They have a Highway Interim Committee that works with the Department and the Legislature between sessions. They feel that this Committee is beneficial to both the Highway Department and the Legislature in keeping them informed on highway needs. Their relations with the B. P. R. is improving but along with other states, feel that they delve too much into state affairs.

#### Washington

The Interim Committee was met in Olympia by members of the Highway Department. Mr. Conner discussed with the Committee the functioning of Washington's Interim Committee.

Washington's Highway Interim Committee was created in 1947 and made a permanent committee in 1951. The Montana Committee had the privilege of attending one of their Committee meetings, and it was most interesting to all members. All agreed that it was the best conducted meeting they



had attended. The subcommittee reports given were excellent in that they spelled out the problems and methods to correct them.

Senator Washington, Chairman of the Finance Committee, pointed out that they had an ever-growing need for money with their expanding program. He also discussed the problem of Government cutbacks which changed their long range planning for their road system in Washington. He also spoke on the relationship of the Interim Committee with the Highway Department and pointed out that it takes a lot of time and effort to have an effective committee. He also stated that Washington has the highest gasoline tax of any state in the West, but in the past session of the Legislature secured another 1¢ per gallon and had no difficulty in getting the bill passed. The reason for this is that the committee held hearings around the state, pointed out the needs for additional revenue and told how it was going to be spent. He also told us that 65% of the Highway bills passed that were presented at the last session.

Mr. Zahn, Chairman of the Highway Commission, spoke with regard to the Highway Interim Committee and their relation with the Highway Commission, and he had nothing but praise for the work they were doing. He stated that the greatest advantage of the Interim Committee is that they keep in close touch with the Highway Department, and in turn keep the public informed of the Highway operations.

He stated that the hearings held by the Interim Committee on routings were extremely beneficial to the Department and the Highway Commission, and they relieved them from pressure from groups within the area, and in most cases, the public accepted the decisions of the Highway Interim Committee findings.



Highway revenue is divided as follows in the State of Washington: counties 25 percent and cities 13 1/2 percent.

The State of Washington does not option gravel pits, as most of their material comes from rock quarries.

### Utah

The Interim Committee was met by the Public Relations officials of the Highway Department. The Committee was then briefed on the operations of their different departments. One of the more interesting aspects of their operation is that they issue a monthly trial balance and a budget report so that they can have an accurate accounting of their money at all times.

Their Interstate is 30 percent complete although this mileage is mostly around urban areas. About 10 percent of their roads are concrete and they have experienced a considerable amount of cracking. They have done a considerable amount of jacking in these cases.

The Right-Of-Way Department is under their Attorney General and he handles all condemnation cases for them.

The Counties and cities share in all road funds in the amount of 30 percent of the gross. The counties have their own secondary road system. They also use black sub-base on all secondaries.

The Highway Department does not designate the gravel pits and doesn't guarantee the quantity and quality of them. However, if a pit should fail, they pay for the move and the additional haul.

Their Highway Department is located in a state office building and they are presently engaged in a feasibility study for a new building.





Wyoming

The Interim Committee met with Mr. Stapp, Mr. Sutton, and Mr. Ainsworth of their Highway Department. The Committee was given a tour of their new building which covered 42 acres. The design is quite plain and all space is utilized to the best advantage. However, they are faced with a shortage of parking space and storage space for their records.

The Wyoming Highway Department guarantees the quantity and quality of gravel pits. This has been a long standing policy there. The Department expects all contractors to have good equipment for their gravel production.

They have had problems with their concrete paving cracking and have done a considerable amount of jacking. They also use asphalt sub-base and it has proved satisfactory.

Conclusion

The Interim Committee has gained much in depth and understanding of the major problems that face other Highway Departments in our region from this review of their operations. Many of their problems are similar to those in Montana and through careful study of their experiences it is hoped that satisfactory solutions can be found for Montana and pitfalls avoided. The Interim Committee would like to express its appreciation to all those individuals from the eight states who gave generously of their time in pointing out the operation and problems of their respective departments.



## Ten State Comparative Study

The following is a summary list of the contents of the ten state comparative study by Mr. Riely Johnson mentioned earlier. This study represents the results of a detailed statistical analysis of the highway department operations in Washington, Oregon, Idaho, Nevada, Utah, Colorado, Wyoming, North Dakota, South Dakota, and Montana. It is available at the Highway Department. The contents of the comparative study are as follows:

1. Introduction--Ten State Comparative Study
2. Physical comparison
3. Comparison of motor fuel consumption
4. Comparison of motor fuel tax receipts
5. Comparison of motor fuel usage
6. Private and commercial use of gasoline for non-highway purposes, MF-5
7. Comparison of motor vehicle registrations and operators' licenses
8. Comparison of motor vehicle receipts
9. Comparison of disposition of motor vehicle receipts
10. Comparison of mileage of federal aid and state highways
11. Comparison of federal aid financing
12. Comparison of cost trends in highway maintenance and operations
13. Comparison of highway taxation
14. Comparison of department expenditures
15. Comparison of maintenance operations
16. Comparison of construction operations



17. Comparison of personnel operations
18. Comparison of tourism activities

Also available at the Highway Department is a consultant's report on the Appraisal of State Highway Buildings, Helena, Montana, by A. Scott Johnson.

#### A Summing Up and a Recommendation

Montana's first Highway Interim Committee was successful on at least three counts. First, it was able to open up the lines of communication between the Legislature and the Highway Department. Second, it brought to the surface a number of important and troublesome issues involving the operation of the Highway Department and the Highway Commission as well as queries from other legislators and citizens. Third, the Interim Committee has provided a program, or an agenda, on which future interim committees can proceed so as to develop recommended solutions.

A successful interim committee, as attested to by Senator Washington from the state of Washington, involves much time, effort, and cooperation. The Montana Committee would not have been able to accomplish anywhere near what it did without the cooperation of the members of the Highway Department and the Highway Commission. These people gave generously of their time and resources for which the members of the Interim Committee would like to express their gratitude. The Committee would also like to urge any member of the Legislature to avail themselves of the communication that now exists between the two bodies and to go to the Highway Department with any questions they may have.



Given what has already been accomplished, the communication that needs to be maintained, and what needs to be done, the Interim Committee recommends passage of the bill at the end of this report to create an interim committee to conduct a comprehensive study of the administration and operation of the Montana Highway Department in cooperation with the Highway Commission.





\_\_\_\_\_  
BILL NO. \_\_\_\_\_  
INTRODUCED BY \_\_\_\_\_

A BILL FOR AN ACT ENTITLED: "AN ACT CREATING AN INTERIM COMMITTEE TO CONDUCT A COMPREHENSIVE STUDY OF THE ADMINISTRATION AND OPERATION OF THE MONTANA HIGHWAY DEPARTMENT IN COOPERATION WITH THE HIGHWAY COMMISSION."

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF THE STATE OF MONTANA:

Section 1. There is created an interim committee to conduct a comprehensive study of the administration and operation of the Montana highway department in cooperation with the Montana highway commission.

Section 2. (1) The committee shall be composed of two (2) members of the house, one (1) from each political party, appointed by the speaker and two (2) members of the senate, one (1) from each political party, appointed by the committee on committees.

(2) The committee shall elect a chairman from its membership.

(3) In the event of a vacancy occurring on the committee, the chairman shall appoint a member, belonging to the same body and political party as did the former member, to fill the vacancy.

Section 3. The committee is authorized to appoint temporary additional members from the house of representatives or senate to assist the committee when matters of a technical nature or matters which affect peculiar areas of activity of the highway department are being considered. The committee may appoint other persons or groups as advisors to the committee as it deems necessary.



Section 4. The committee is delegated authority to hold hearings, administer oaths, subpoena and compel the attendance of witnesses, and to take evidence in the conduct of this study.

Section 5. The committee is authorized to expend any funds necessary to consult with personnel of the bureau of public roads and the highway departments of other states.

Section 6. The chairman of the committee, with the consent of the other members, may appoint an executive secretary and other staff members as needed, define their duties, and set their salaries.

Section 7. The highway department shall furnish secretarial and legal aid to the committee as requested by the committee.

Section 8. All expenses of the interim committee shall be paid out of the earmarked revenue fund, state highway account.

Section 9. (1) Each member of the interim committee and temporary members shall be reimbursed for actual and necessary expenses incurred on committee business, and may receive any per diem amount authorized for members of interim legislative committees.

(2) Staff personnel shall be reimbursed for travel and expenses as provided for state employees and elected officials in R.C.M. 1947, sections 59-538, 59-801, and 59-802.

Section 10. The committee shall maintain complete records of all evidence gathered, including a written transcript of all testimony taken at hearings, and shall submit a written report to the forty-second legislative assembly.

Section 11. There is appropriated \_\_\_\_\_ from the earmarked revenue fund, state highway account, to carry out the purposes of this act.

Section 12. This act is effective on passage and approval.





